Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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October 23, 2013

Mr. Michael Bolko
Entegris, Inc.
129 Concord Road
Billerica, MA 01821

RE: ***BEDFORD***
Transmittal No.: X255348
Application No.: *NE-13-013*
Class: *SM-50*
FMF No.: *545933*
AIR QUALITY PLAN APPROVAL

Dear Mr. Bolko:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, has reviewed your Non-major Comprehensive Plan Application ("Application") listed above. This Application concerns the proposed construction and operation of advanced membrane /separation media and specialty coatings operations at your manufacturing and research and development facility located at 9 Crosby Drive in Bedford, Massachusetts ("Facility"). The Application bears the seal and signature of Dorothy K. Austin, Massachusetts Registered Professional Engineer number 37437.

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner / operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

The Permittee is proposing to construct and operate a new advanced membrane/separation media and specialty coatings operations manufacturing and research and development manufacturing facility, to be located at 9 Crosby Drive in Bedford Massachusetts. As a new Facility, no existing Air Quality Approvals have previously been issued by MassDEP to the Permittee for this Facility. The Facility has proposed to utilize and emit chemicals containing volatile organic compounds (VOC), hazardous air pollutants (HAP), non-photochemically reactive hydrocarbons (HYC), halogenated organic compounds (HOC) and particulate matter (PM) in its process equipment which will be used to produce liquid and gas separation media and specialty coatings. This Application concerns the construction and operation of seven (7) proposed Emission Units, consisting of multiple processes, as described in Table 1 below. For completeness, Table 1 also includes an emergency generator which is subject to Regulation 310 CMR 7.26(42). Please see Section 4 Special Terms and Conditions, Table 6 for requirements applicable to said emergency generator.

Best Available Control Technology (BACT) emission limits for the Facility are contained in Table 2.

The Application indicates that the solvent cleaning machines do not use the solvents containing chemicals listed in 40 CFR 63, Subpart T - "National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning" and as such the Facility is not subject to requirements of said Regulation (See Table 6, Special Condition 10 of this Approval).

2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1

EU#	Description	Design Capacity	Pollution Control Device (PCD) (efficiency)
1	• **Process ID A01:** Two custom made ConQuip Inc. UPE Membrane Flat Sheet Extruder Lines (one by ConQuip Inc. & one Internal)	27.4 million feet of flat sheet membrane per year (single width equivalents)	Oil Mist Collector (90% by volume)

Table 1			
EU#	**Description**	**Design Capacity**	**Pollution Control Device (PCD) (efficiency)**
	• **Process ID A02:** One custom made ConQuip In-line Gel Annealing and JPW Design & Manufacturing Batch Annealing and Oven	27.4 million feet of flat sheet membrane per year (single width equivalents)	Oil Mist Collector (90% by volume)
1	• **Process ID A04, A05:** custom made Serec Corp. Membrane Extraction Equipment, including Holding Tanks, Spray Chambers, Primary and Secondary Distillation Units, waste oil tank and a knock out pot	27.4 million feet of flat sheet membrane per year (single width equivalents)	NA
	• **Process ID A06:** ConQuip Inc. Membrane Surface Modification Line (SML), custom made	13.5 million feet of flat sheet membrane per year (single width equivalents)	
	• **Process ID A07:** Frame Extractor, membrane quality assurance (QA) Process (degreaser unit)	< 100 gallons solvent usage per month	
	• **Process ID B01:** IPEC Membrane Mix Station, custom made	1,100,000 pounds per year VOC dispensed	
	• **Process ID C01:** IPEC Monomer Mix Station, custom made	5750 hours per year VOC dispensed	
	• **Process ID C02 &C03:** Three Porisimeters, custom made	35,000 tests per year (total for the two processes)	
	• **Process ID C04:** Three Flow Time Testers (Membrane QA Tester), custom made	35,000 tests per year	
2	• **Process ID D01:** PFA Extruder	13.5 million feet of hollow fiber membrane per year	Oil Mist Collector (86% by volume)
	• **Process ID D02:** Three Membrane Extractors (Degreaser Units)	< 100 gallons solvent usage per month (each)	NA
	• **Process ID D03:** Distillation Unit to recycle extraction chemical	2 cycles per day	

Table 1			
EU#	**Description**	**Design Capacity**	**Pollution Control Device (PCD) (efficiency)**
3	• **Process ID E01 & E10:** Asymmetric Co-Extrusions and two Gel Annealing Ovens	1,000,000 feet of flat sheet membrane per year (single width equivalents)	Oil Mist Collector (86% by volume)
3	• **Process ID E02, E04, and E11:** Flat Sheet Membrane extractor quality control(QC), Membrane Annealing, and Batch Annealing in ovens	< 100 gallons solvent usage per month (each of the three processes)	NA
	• **Process ID E03:** Distillation Unit to recycle extraction chemical	2 cycles per day	
	• **Process ID E05:** (Hollow fiber) Co-extrusion	1,000,000 feet per year of hollow fiber membrane	Oil Mist Collector (86% by volume)
	• **Process ID E06:** Two TOBY Extractors to recycle extraction chemical	<100 gallons solvent usage per month (each)	NA
	• **Process ID E07:** Lab hoods for mixing and dispensing chemical	<100 gallons dispensed per day	
	• **Process ID E08:** Nova Three Step Membrane Conversion Line	115,000 feet of flat sheet membrane per year (single width equivalents)	
	• **Process ID E12 & E13:** Porisimeter QC equipment	7,800 tests per year, (total for the two processes)	
	• **Process ID E14:** Flow Time Tester QC equipment	7,800 tests per year	
4	• **Process ID F01:** Hot Filament Chemical Vapor Deposition (8 Chambers)	2920 cycles per year	
5	• **Process ID G02:** Plasma Enhanced Chemical Vapor Deposition (16 Units)	2190 cycles per year (each)	
	• **Process ID G03:** Four Sputtering Units	4380 cycles per year (each)	
	• **Process ID G04:** Two Reactive Ion Etch Units	2190 cycles per year (each)	
	• **Process ID G05, G06, G08, G15 & G16:** Manual Hand cleaning and two wet process lab hoods	8760 hours per year	

Table 1			
EU#	**Description**	**Design Capacity**	**Pollution Control Device (PCD) (efficiency)**
	• **Process ID G07:** Omni Cleaner Line	25,000 cycles per year	
	• **Process ID G09:** E-Clamp Assembly	2600 units per year	
5	• **Process ID G10:** Two Media Blasters	2000 hours per year	Dust Collection (98% by weight)
	• **Process ID G11:** Down Draft Table	2000 hours per year	NA
	• **Process ID G12:** E-Clamp Decon	2600 units per year	
	• **Process ID G13:** Teflon Spray lab hood	2600 units per year	
	• **Process ID G17:** Automatic spray coater	2600 units per year	
	• **Process ID G18:** Manual Spray Coater	2600 units per year	
6	• **Process ID I01:** Six Lab hoods for mixing and dispensing Metal Powder	20,000 pounds powders dispensed per year	Dust Collection (94% by weight)
	• **Process ID I03:** Three MIG Welders and One Laser Welder	50 pounds welding rods per year	NA
	• **Process ID I04:** Laser Cutter	460 pounds material removed per year	Integral filtration (85% by weight)
	• **Process ID I05:** GMC Workshop – Sanding, Polishing, Grinding	2500 units per year	Dust Collection (89% by weight)
7	• **Process ID J01:** 500 Gallon Waste VOC tank	500 gallons	NA
	• **Process ID J02:** Dispensing Station, transfer to larger containers prior to offsite disposal	55 gallons	
	• **Process ID K01:** Dispensing Station, transfer to smaller containers	55 gallons	
8	• Caterpillar Emergency Generator Model C14	400 kW	

Table 1 Key:
EU# = Emission Unit Number
PCD = Pollution Control Device
< = less than
% = percent

NA = not applicable

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION AND EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2, below:

Table 2

EU #	Process Identification	Operational / Production Limit	Air Contaminant/ Emission Limit					
			Non water soluble VOC	water soluble VOC	HOC	HAPs	HYC	PM
1	**Process ID A01:** 2 custom made UPE Membrane Flat Sheet Extruder Lines	Oil Mist Collector efficiency ≥ 90 % by volume 27.4 million feet of single width flat sheet membrane extruded per year	0.00009 pounds per foot of single width flat sheet membrane extruded 1.3 TPY	-	-	0.00007 pounds per foot of single width flat sheet membrane extruded 1.0 TPY	-	-
	Process ID A04, A05: custom made Serec Corp. Membrane Extraction Equipment, including Holding Tanks, Spray Chambers, Primary and Secondary Distillation Units, waste oil tank and a knock out pot	27.4 million feet of single width flat sheet membrane extruded per year	2.8 pounds per hour, average monthly basis 12.3 TPY	-	1.4 pounds per hour, average monthly basis 6.1 TPY	-	-	-

Table 2								
EU #	**Process Identification**	**Operational / Production Limit**	**Air Contaminant/ Emission Limit**					
			Non water soluble VOC	**water soluble VOC**	**HOC**	**HAPs**	**HYC**	**PM**
1	**Process ID A06:** custom made ConQuip Inc. Membrane Surface Modification Line (SML)	Limit production and operations to ensure compliance with Emission Limits contained herein	-	7.9 pounds per hour 5.2 TPY	-	6.6 pounds per hour 1.6 TPY	0.8 pound per hour 2.4 TPY	-
	Process ID C02 &C03: Porisimeters, custom made	Limit production and operations to ensure compliance with Emission Limits contained herein	-	0.2 pounds per hour (total) 0.9 TPY (total)	0.7 pounds per hour (total) 3.1 TPY (total)	-	-	-
2	**Process ID D02:** Three Membrane Extractors (Degreaser Units)	< 100 gallons of solvent usage per month (each)	-	-	1.22 pounds per hour 5.4 TPY	-	-	-
5	**Process ID G05, G06, G08, G15 & G16:** Manual Hand cleaning and two wet process lab hoods	Limit production and operations to ensure compliance with Emission Limits contained herein	-	1.1 pounds per hour (total) 3.5 TPY (total)	-	-	1.0 pound per hour (total) 3.2 TPY (total)	-

Table 2								
EU #	**Process Identification**	**Operational / Production Limit**	**Air Contaminant/ Emission Limit**					
			Non water soluble VOC	**water soluble VOC**	**HOC**	**HAPs**	**HYC**	**PM**
1-7	**A02, A07, B01, C01, C04, D01, D03, E01,E02, E03, E04, E05, E06, E08, E10, E11, E12, E13, E14, F01, G02, G04, G07, G09, G10, G11, G12, G13, G17, G18, I01, I03, I04, I05, J01**	Limit operation to no greater than the design capacity listed in Table 1 of this Approval	0.5 TPM (total) 1.0 TPY (total)	0.05 TPM (total) 0.9 TPY (total)	0.9 TPM (total) 1.8 TPY (total)	0.15 TPM (total) 0.3 TPY (total)	0.1 TPM (total) 0.2 TPY (total)	0.25 TPM (total) 0.5 TPY (total)
Facility-Wide		Limit production and operations such that VOC, HOC, HAPs, HYC and PM emissions do not exceed the emissions limits listed herein.	< 1.2 TPM < 14.5 TPY	< 2.4 TPM < 10.5 TPY	< 1.6 TPM < 16.4 TPY	< 0.6 TPM > 2.9 TPY	< 1.4 TPM < 5.8 TPY	< 0.1 TPM < 0.5 TPY

Table 2 Key:
EU# = Emission Unit Number
HAPs = total Hazardous Air Pollutants
HOC = halogenated organic compounds
HYC = non-photochemically reactive hydrocarbons
PM = Total Particulate Matter
TPM = tons per month
TPY = tons per consecutive 12-month period
VOC = Volatile Organic Compounds
< = less than
- = negligible emissions

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

Table 3

EU#		Monitoring and Testing Requirements
1-3	Process A01, Process A02, Process D01, Process E01, Process E05, Process E10	1. The Permittee shall monitor usage such that the oil mist collector serving each Process shall be operated at all times when its associated Process is in operation.
		2. The Permittee shall monitor pressure gauge readings according to manufacturers' recommendations to ensure filter cleanings and replacements are performed in accordance with manufacturers' recommendations.
		3. The Permittee shall monitor filter cleanings and replacements to ensure that said cleanings and replacements are performed according to manufacturer recommendations.
1	Process A01, Process A04, Process A05	4. The Permittee shall monitor the number of feet extruded, per month and per consecutive twelve month period, for each Process.
5,6	Process G10, Process G11, Process G12, Process I01, Process I04, Process I05	5. The Permittee shall monitor usage such that the dust collector serving each Process shall be operated at all times when its associated Process is in operation.
		6. The Permittee shall monitor operation or pressure gauge readings according to manufacturers' recommendations to ensure filter cleanings and replacements are performed in accordance with manufacturers' recommendations.
		7. The Permittee shall monitor filter cleanings and replacements to ensure that said cleanings and replacements are performed according to manufacturer recommendations.
1, 2, 3	Process A07, Process D02, Process E02, Process E04, Process E06, Process E11	8. The Permittee shall ensure that process units shall comply with the monitoring requirements contained in 310 CMR 7.18(8) and shall be limited to a solvent consumption rate of less than 100 gallons per month. Consumption rate is the amount of solvent added into the unit less any documented solvent waste disposal or recycling amounts, each in gallons per month.

Table 3		
EU#		**Monitoring and Testing Requirements**
1, 2, 5	Process A01, Process A04, Process A05, Process A06, Process C02, Process C03, Process D02, Process G05, Process G08, Process G15, Process G16	9. The Permittee shall monitor material usage, production, and operations to ensure that actual emissions from each Process do not exceed the emissions limits listed in Table 2 of this Approval.
1-7	Processes: A02, A07, B01, C01, C04, D01, D03,E01, E02, E03, E04, E05, E06, E08, E10, E11, E12, E13, E14, F01, G02, G04, G07, G09, G10, G11, G12, G13, G17, G18, I01, I03, I04, I05, J01	10. The Permittee shall monitor material usage, production, and operations to ensure that actual emissions do not exceed the emissions limits listed in Table 2 of this Approval.
1, 2, 3, 5, 6	Process A01, Process A02, Process D01, Process E01, Process E05, Process E10, Process G10, Process G11, Process G12, Process I01, Process I04, Process I05	11. The Permittee shall monitor operations in order to be able to immediately cease operation of a Process in the event of any upset or malfunction of its associated air pollution control equipment, which results in excess emissions to the air and/or a condition of air pollution, until the problem has been corrected.
Facility-wide		12. The Permittee shall monitor material usage, production, and operations to ensure that actual emissions do not exceed the emissions limits listed in Table 2 of this Approval.
		13. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
		14. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13.

Table 3 Key:
EU# = Emission Unit Number

Table 4		
EU#		**Record Keeping Requirements**
1, 2, 3	Process A07 Process D02 Process E02 Process E04 Process E06 Process E11	1. The Permittee shall comply with the record keeping requirements contained in 310 CMR 7.18(8).
1, 2, 5	Process A01, Process A04, Process A05, Process A06, Process C02, Process C03, Process D02, Process G05, Process G08, Process G15, Process G16	2. The Permittee shall maintain a record of material usage, production, and operations to ensure that actual emissions do not exceed the emissions limits listed in Table 2 of this Approval.
1-7	Processes: A02, A07, B01, C01, C04, D01, D03,E01, E02, E03, E04, E05, E06, E08, E10, E11, E12, E13, E14, F01, G02, G04, G07, G09, G10, G11, G12, G13, G17, G18, I01, I03, I04, I05, J01	3. The Permittee shall maintain a record of material usage, production, and operations to ensure that actual emissions do not exceed the emissions limits listed in Table 2 of this Approval.
Facility-wide		4. The Permittee shall maintain a record of material usage, production, and operations to ensure that actual emissions do not exceed the emissions limits listed in Table 2 of this Approval.

Table 4	
EU#	**Record Keeping Requirements**
Facility-wide	5. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping
	6. The Permittee shall ensure that the record keeping requirements contained in 310 CMR 7.18(8) are complied with for all degreasing units.
	7. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	8. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EUs and PCDs approved herein on-site.
	9. The Permittee shall maintain a record of routine maintenance activities performed on the approved EUs, PCDs and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	10. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EUs, PCDs, and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	11. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	12. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	13. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:
EU# = Emission Unit Number
PCD = Pollution Control Device
SOMP = Standard Operating and Maintenance Procedure
USEPA = United States Environmental Protection Agency

Table 5	
EU#	**Reporting Requirements**
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. By March 15th of each year, the Permittee shall submit an Annual Emissions Report to this Office containing the actual VOC, HOC, HAPs, HYC, and PM emissions rates in tons, on both a monthly and consecutive twelve month time period. The MassDEP approved Report Form in Microsoft Excel format can be downloaded at http://www.mass.gov/dep/air/approvals/aqforms.htm#report.
	3. The Permittee shall notify the Northeast Regional Office of MassDEP, BWP Permit Chief by email at Nero.Air@MassMail.State.MA.US or fax [978-694-3499], as soon as possible, but no later than one (1) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to the BWP Permit Chief at MassDEP within three (3) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	4. Pursuant to 7.12(1)(a)7., the Permittee is required to file Source Registration as a condition of this Plan Approval.
	5. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's written request.
	6. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	7. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

Table 5 Key:
EU# = Emission Unit Number
HAPs = total Hazardous Air Pollutants
HOC = halogenated organic compounds
HYC = non-photochemically reactive hydrocarbons
PM = Total Particulate Matter
VOC = Volatile Organic Compounds

4. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to, and shall comply with, the following special terms and conditions:

A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6		
EU#		**Special Terms and Conditions**
1, 2, 3	Process A01, Process A02, Process D01, Process E01, Process E05, Process E10	1. The Permittee shall operate each oil mist collector at all times that its associated Process is in operation.
		2. The Permittee shall ensure that each oil mist collector serving a Process shall be equipped with magnehelic pressure gauges to indicate when pre-filter(s) need to be cleaned and/or when the main filter(s) need to be replaced.
		3. The Permittee shall perform filter cleanings and filter replacements at a frequency or differential pressure as recommended by the oil mist collector manufacturer.
5, 6	Process G10, Process G11, Process G12, Process I01, Process I04, Process I05	4. The Permittee shall operate each dust collector at all times that its associated Process is in operation.
		5. The Permittee shall perform filter cleanings and replacements at a frequency or differential pressure as recommended by the dust collector manufacturer.
6	Process I01, Process I04, Process I05	6. The Permittee shall ensure that each dust collector serving a Process shall be equipped with magnehelic pressure gauges to indicate when the filter(s) need to be cleaned and/or replaced.
8		7. Said EU is subject to and shall comply with all applicable requirements of Regulation 310 CMR 7.26(42).
		8. Within sixty (60) days of receipt of this Approval letter, the Permittee shall increase the height of the exhaust stack of the existing emergency generator such that it extends to at least 10 feet above the height of the Facility building roof.
		9. The Permittee shall notify this Office, in writing at the letterhead address, within seven (7) days of completion of the exhaust stack retrofit required above on the emergency generator.
Facility-wide		10. The provisions of Regulation 40 CFR Part 63, Subpart T apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. In order to not be subject to the above Regulation, the Permittee shall monitor usage and maintain records documenting that none of the solvents contained in 40 CFR Part 63, Subpart T have been used at the Facility.

Table 6 Key:
EU# = Emission Unit Number

B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part

or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as "shanty caps" and "egg beaters." The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

Table 7

EU#	Process#	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (^{o}F)
2,3	D02, D03, E02, E03, E04, E06, E08, E11, E12, E13, E14	31.3	2.4	95	60-80
1,4	A04, A05, A07, B01, F01	31.3	2.4	95	60-80
5,6	G7, G13, I04	31.3	2.4	95	60-80
1	C01, C02, C03, C04	26.7	0.75	47	60-80
7	J01, J02, K01	29.4	2.7	14	60-80
1	A01, A02	29.6	3.0	11	75-250
2,3	D01, E01, E05, E10	29.4	3.3	19	75-250
3	E07	30.2	3.3	12	60-80
6	I01	26.5	1.4	85	60-80
6	I03	27.7	0.5	78	60-80
5	G10, G11, G12	27.7	2.2	10	60-80
5	G05, G06, G08, G09, G15, G16	29.5	2.7	13	60-80
1	A06	28.3	2.7	13	60-100
5	G17, G18	27.7	0.5	80	60-80
6	I05	27.7	0.5	56	60-80
5	G02, G03, G04	27.7	0.42	20	60-100
8	NA	35.0	0.67	174	910 (max)

Table 7 Key:
EU = Emission Unit
# = Number
NA = not applicable
^{o}F = Degree Fahrenheit

6. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).

B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.

C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.

D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.

E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.

F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.

G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.

H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.

I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.

J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.

K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

7. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

8. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or

town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Should you have any questions concerning this Plan Approval, please contact Susan McConnell by telephone at (978) 694-3292, or in writing at the letterhead address.

Susan McConnell
Environmental Engineer

James E. Belsky
Permit Chief
Bureau of Waste Prevention

ecc: Bedford Board of Health / Dept of Health
Bedford Fire Department
MassDEP/Boston - Yi Tian
MassDEP/NERO – Marc Altobelli, Mary Persky, Susan McConnell
Dorothy Austin, Golder Associates, 105 Bradford Road, Suite 420, Wexford, PA 15090

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